R.V. Budny and JET contributors

- Reanalysis [1] of the JET alpha heating experiment in DTE1 (1997) shows strong correlations of core $T_{
 m e}$ and $T_{
 m i}$ with thermal hydrogenic isotopic mass A, and ambiguous correlations with alpha heating
- Recent analysis shows strong correlation with beam ion parameters such as the normalized pressure toroidal β_{bm}
- ullet Is the cause of high $T_{
 m e}$ and $T_{
 m i}$ either A or eta_{bm} ?
 - if A then DT reactors should outperform standard predictions
 - if eta_{bm} then too bad since $abla(eta_{bm})$ will be small in reactors although large $abla(eta_{lpha})$ might compensate

Results

- correlations of core $T_{
m e}$ and $T_{
m i}$ slightly stronger with A, but both A and eta_{bm} appear to contribute to improved confinement

[1] R.Budny and JET collaborators, Nucl. Fusion 56 (2016) 036013